

The Commonwealth of Massachusetts  
Executive Office of Health and Human Services  
Department of Public Health  
William A. Hinton State Laboratory Institute  
305 South Street, Jamaica Plain, MA 02130  
617-983-6622

DEVAL L. PATRICK  
GOVERNOR

TIMOTHY P. MURRAY  
LIEUTENANT GOVERNOR

JUDYANN BIGBY, MD  
SECRETARY

JOHN AUERBACH  
COMMISSIONER

11/17/11

Evandro Carvalho  
Assistant District Attorney, Suffolk County

Dear ADA Carvalho,

Enclosed are copies of the information you requested regarding sample number  
[REDACTED] in the following:

1. Drug Analysis Laboratory Receipt.
2. Curriculum Vitae for Daniela Frasca and Annie Khan (Dookhan).
3. Control Card with Analytical Results for sample number [REDACTED]
4. Analysis Notation Forms for the above sample number.
5. GC-MS Raw Data Sheets for the above sample number.

GC-MS confirmatory testing was performed by Annie Khan (Dookhan). All other testing was performed by Daniela Frasca. If you have any questions or concerns about these facts, please contact me at the number below.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniela Frasca".

Daniela Frasca  
Chemist II  
Drug Laboratory  
617 983-6631  
fax: 617 983-6625



**DRUG RECEIPT**

CC # XXXXXXXXXX  
BOOK # 145  
PAGE # 102  
DESTRUCTION # XXXXXXXXXX

District/Unit BKUJA

Name & Rank of Arresting Officer LYONS / DUNFORD ID# 82917) 92258

**To be completed by ECU personnel only**

**Name and Rank of Submitting Officer**

ID# 9370

Received by

Date 10-02-09

# Curriculum Vitae

Daniela Frasca

## Education

**Boston University School of Medicine, Boston MA**  
*Currently enrolled in the Biomedical Forensic Science MS Program*

**Suffolk University, Boston, MA**  
*Graduated in 05/1996 and received a Bachelor of Science in Biochemistry*

## EXPERIENCE

**Massachusetts State Laboratory Institute/DPH, Jamaica Plain, MA** 01/2001 – present  
Drug Laboratory: Chemist II

- Analysis of all substances by chemical screening, microscopy, and instrument confirmation to determine the presence of drugs for law enforcement agencies in the Commonwealth of Massachusetts.
- Appointed assistant analyst on January 29, 2001 by the Assistant Commissioner of DPH
- Completed four weeks of training in drug analysis under the supervision of senior chemists.

**Quest Diagnostics Incorporated, Cambridge, MA** 09/1996 – 10/2001  
Department of Toxicology: Medical Technologist I

- Handles comprehensive toxic analysis, therapeutic drug monitoring, forensic drug screening, and compound ID's of biohazard samples utilizing standard operating procedures in clinical toxicology.
- Entered data and interpreted results for reporting
- QC/QA of multiple analytical instrumentation as well as maintenance
- Completed 60 days of training under the supervision of doctorate level toxicologists.

## Additional Training

**Northeastern Association of Forensic Scientists**  
Designer Drugs Clandestine labs  
Agilent Instruments and Software Digital Photography

**McCrone Research Institute**  
Forensic Polarized Microscopy  
Polarized Microscopy of Illicit Drugs and Excipients

**Massachusetts State Laboratory Institute**  
Expert Witness  
Raman Spectroscopy

## Associations and Programs

- Northeastern Association of Forensic Scientists (NEAFS) 2001 - present
- The International Association of Forensic Toxicologists (TIAFT) 2003 - present
- The International Association of Therapeutic Drug Monitoring And Clinical Toxicology (IATDMCT) 2003 - present
- Massachusetts State Science Fair Judge 2000 - present
- Middle School State Science Fair Judge 2006 - present
- Volunteer Science Project Mentor/Tutor 2003 - present  
for the TTT Mentor Program

## Curriculum Vitae

### Annie Khan (Dookhan)

#### **Education:**

University of Massachusetts, Boston, Ma, Master of Science in Chemistry.  
University of Massachusetts, Boston, Ma, Bachelor of Science in Biochemistry.

#### **Experience:**

2003 – present

#### Chemist I, II, Massachusetts Department of Public Health, Drug Analysis Laboratory

- \*Completed six-week training course conducted by senior staff within the Department of Public Health, Drug Analysis Laboratory.
- \*Appointed Assistant Analyst by Assistant Commissioner of Public Health, 2004.
- \*Responsible for the identification of illicit drugs to determine violations of harmful and narcotic drug laws.
- \*Trained in the use of complex analytical instrumentation, microscopes and balances for the purpose of drug analysis.
- \*Maintenance and repairs of all analytical instruments.
- \*Responsible for the Quality Control of all analytical instruments, reagents and controls/standards.
- \* Responsible for the Quality Control/Quality Assurance program for the drug lab.
- \*Notary Public.
- \*Qualified as an expert witness in Massachusetts Courts and U.S. District Court

2001 – 2003

#### QC Analyst I, II, UMMS-Massachusetts Biologic Laboratory, QC Material Control

- \*Completed proficiency training conducted by a member of the staff within the MLB Quality Control and Quality Assurance Department.
- \*Method Development for creating new techniques and enhancing vaccines for the QC Dept. and FDA.
- \*Writing, revising and reviewing Standard Operating Procedures (SOPs).
- \*Trained and supervised new chemists and interns for the department.
- \*Routine QC testing of products for the FDA.
- \*Trained in the use of complex analytical instrumentation, and balances for the purpose of QC analysis for product and validation projects.
- \*Calibration, preventive maintenance, QC and QA of analytical instrumentation.
- \*Complete testing of chemicals for Vendor Validation Project for the FDA.
- \*Compendial testing and interpretation of the USP, ACS, FCC, AOAC, Merck Index, PDR, etc.

#### **Additional Training:**

Dept. of Justice – Forensics Professionals. (numerous trainings)  
GLP/GMP course with Massachusetts Biologic Laboratory.  
QC/QA training according to FDA Codes and Regulations.  
GC and GC/MS courses with Agilent Technologies and Restek.  
HPLC course with Waters Cooperation.  
FTIR course with Spectros.  
TOC training with MBL and Sievers.

#### **Association:**

American Chemical Society (ACS)  
Northeastern Association of Forensics Science (NEAFS)

No. [REDACTED]

Date Analyzed: 05-11-10

City: Boston D.C.U. Police Dept.

Officer: P.O. Diana Lopez

Def: [REDACTED]

Amount:

Subst: SUB

No. Cont: 13 Cont: pb

Date Rec'd: 10/02/2009

No. Analyzed: 2

Gross Wt.: 4.65

Net Weight: 1.873

Estimated Net Wt: 1.873

# Tests: 14

1.873

Prelim: *(P)* Cocaine

Findings: cocaine

# DRUG POWDER ANALYSIS FORM

SAMPLE #

AGENCY

Boston

ANALYST

PRR

## PHYSICAL DESCRIPTION:

Er. wack

Substance in 13 PLB

2 Marg -

Gross Wt. 3.0512g

2 Prod -

2 Meck -

Gross wt and Net wt  
of 2 randomly  
analyzed are on  
back

2 Gold +

2 TLTA + + Maal

Estimated Net wt  
13 by 2.5 1.879

## PRELIMINARY TEST RESULTS

RESULTS

Cocaine

DATE

5/3/10

## GC/MS CONFIRMATORY TEST

RESULTS

Cocaine

MS

OPERATOR

PRR

DATE

5/11/10

Sample #: XXXXXXXXXX

# samples tested: 2

| #  | Gross Weight | Packet Weight         | Net Weight | #  | Gross Weight |
|----|--------------|-----------------------|------------|----|--------------|
| 1  | 0.1939       |                       | 0.1479     | 26 |              |
| 2  | 0.1766       |                       | 0.1411     | 27 |              |
| 3  |              |                       | 0.2890     | 28 |              |
| 4  |              |                       |            | 29 |              |
| 5  |              |                       |            | 30 |              |
| 6  |              | $\div 2 = 0.1445$     |            | 31 |              |
| 7  |              |                       |            | 32 |              |
| 8  |              |                       |            | 33 |              |
| 9  |              | $\times 13 = 1.8785g$ |            | 34 |              |
| 10 |              |                       |            | 35 |              |
| 11 |              |                       |            | 36 |              |
| 12 |              |                       |            | 37 |              |
| 13 |              |                       |            | 38 |              |
| 14 |              |                       |            | 39 |              |
| 15 |              |                       |            | 40 |              |
| 16 |              |                       |            | 41 |              |
| 17 |              |                       |            | 42 |              |
| 18 |              |                       |            | 43 |              |
| 19 |              |                       |            | 44 |              |
| 20 |              |                       |            | 45 |              |
| 21 |              |                       |            | 46 |              |
| 22 |              |                       |            | 47 |              |
| 23 |              |                       |            | 48 |              |
| 24 |              |                       |            | 49 |              |
| 25 |              |                       |            | 50 |              |

Calculations:

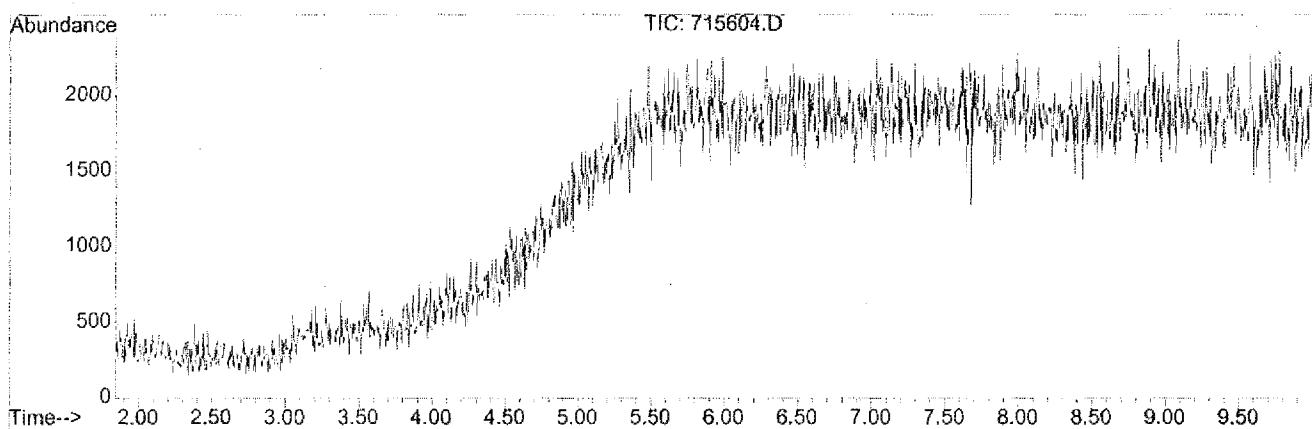
# Area Percent / Library Search Report

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## Information from Data File:

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Operator : ASD  
Date Acquired : 10 May 2010 9:49  
Sample Name : BLANK  
Submitted by :  
Vial Number : 1  
AcquisitionMeth: DRUGS  
Integrator : RTE

✓  
ASO  
10-14-11



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| Ret. Time | Area | Area % | Ratio % |
|-----------|------|--------|---------|
|-----------|------|--------|---------|

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\*\*\*NO INTEGRATED PEAKS\*\*\*

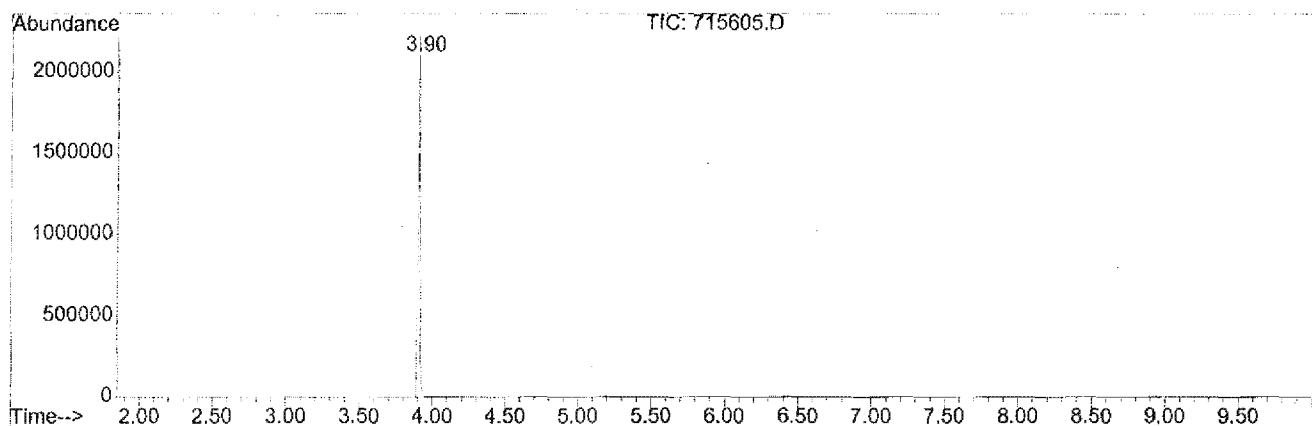
Area Percent / Library Search Report

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Information from Data File:

File Name : F:\Q2-2010\SYSTEM4\05\_10\_10\715605.D  
Operator : ASD  
Date Acquired : 10 May 2010 10:03  
Sample Name : COCAINE STD  
Submitted by :  
Vial Number : 5  
AcquisitionMeth: DRUGS  
Integrator : RTE

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| Ret. Time | Area    | Area % | Ratio % |
|-----------|---------|--------|---------|
| 3.905     | 2064165 | 100.00 | 100.00  |

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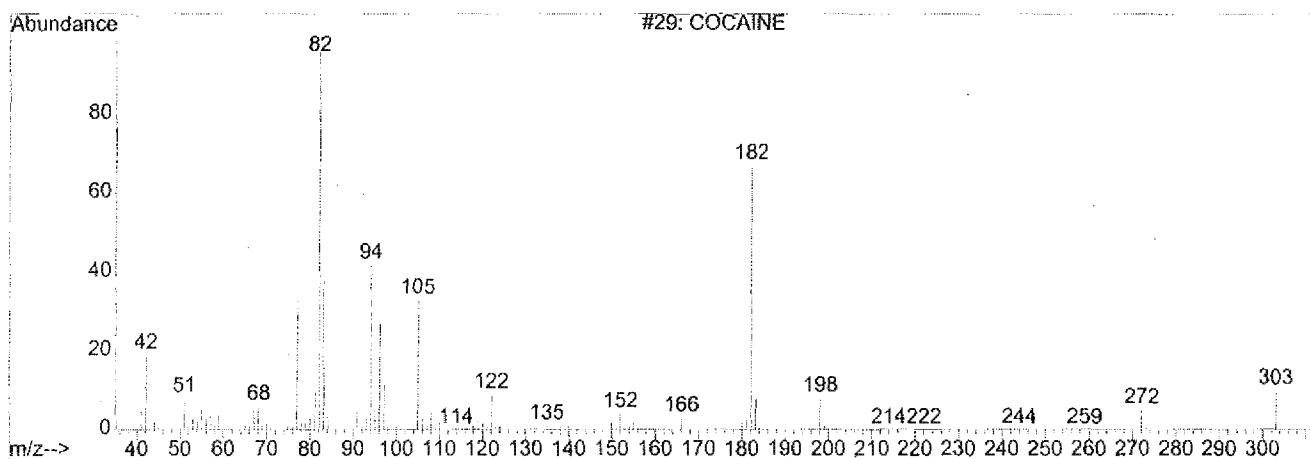
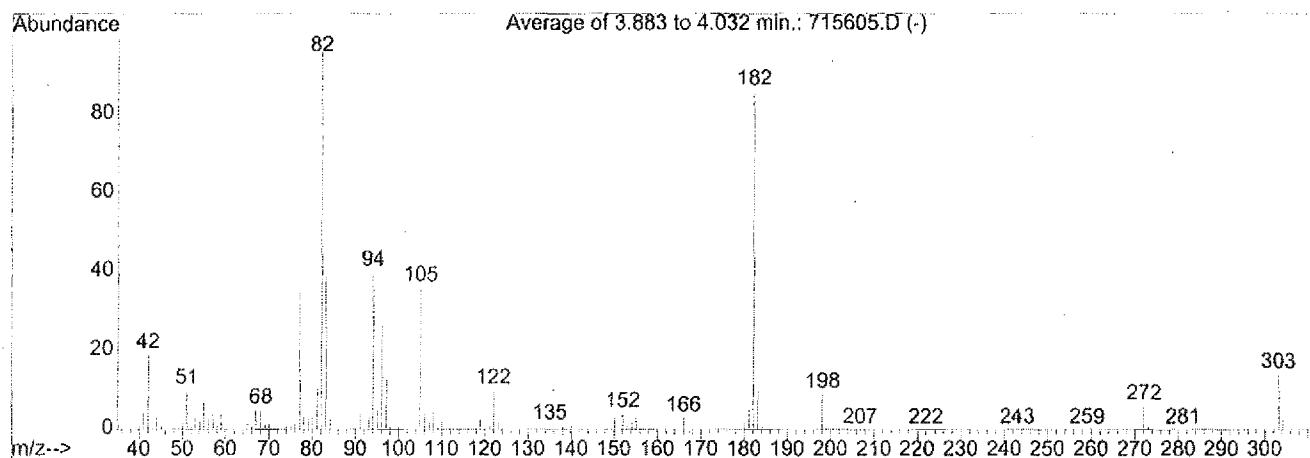
# Area Percent / Library Search Report

**Information from Data File:**

File Name : F:\Q2-2010\SYSTEM4\05\_10\_10\715605.D  
Operator : ASD  
Date Acquired : 10 May 2010 10:03  
Sample Name : COCAINE STD  
Submitted by :  
Vial Number : 5  
AcquisitionMeth: DRUGS  
Integrator : RTE

Search Libraries: C:\DATABASE\SLI.L Minimum Quality: 90  
C:\DATABASE\PMW\_TOX2.L Minimum Quality: 90  
C:\DATABASE\NIST98.L

| PK# | RT   | Library/ID                   | CAS#        | Qual |
|-----|------|------------------------------|-------------|------|
| 1   | 3.90 | C:\DATABASE\SLI.L<br>COCAINE | 000050-36-2 | 99   |



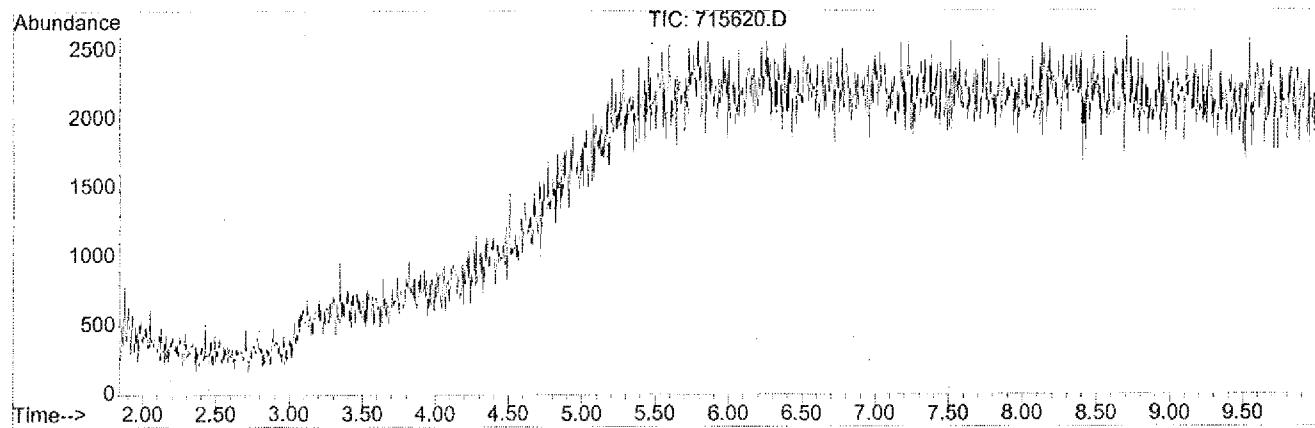
Area Percent / Library Search Report

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Operator : ASD  
Date Acquired : 10 May 2010 13:29  
Sample Name : BLANK  
Submitted by : DXF  
Vial Number : 1  
AcquisitionMeth: DRUGS  
Integrator : RTE

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| Ret. Time | Area | Area % | Ratio % |
|-----------|------|--------|---------|
|-----------|------|--------|---------|

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\*\*\*NO INTEGRATED PEAKS\*\*\*

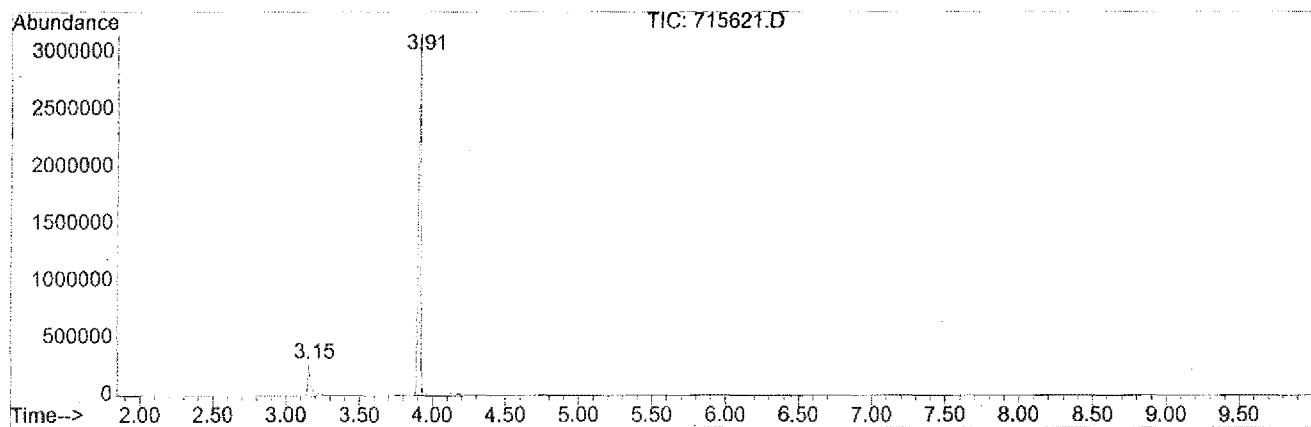
Area Percent / Library Search Report

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Information from Data File:

File Name : F:\Q2-2010\SYSTEM4\05\_10\_10\715621.D  
Operator : ASD  
Date Acquired : 10 May 2010 13:43  
Sample Name : XXXXXXXXXX  
Submitted by : DXF  
Vial Number : 21  
AcquisitionMeth: DRUGS  
Integrator : RTE

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| Ret. Time | Area    | Area % | Ratio % |
|-----------|---------|--------|---------|
| 3.150     | 440640  | 10.49  | 11.72   |
| 3.912     | 3759268 | 89.51  | 100.00  |

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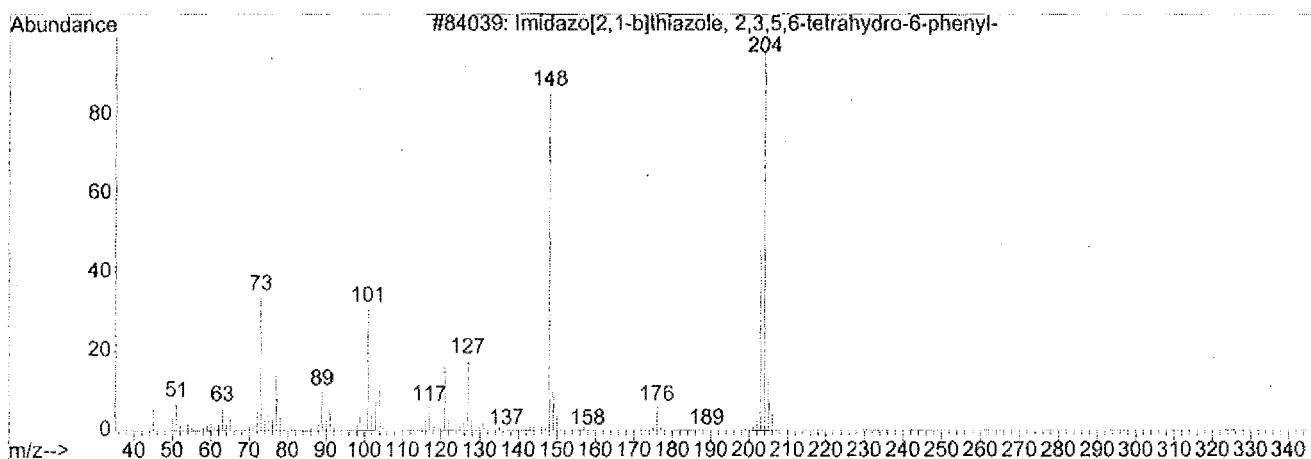
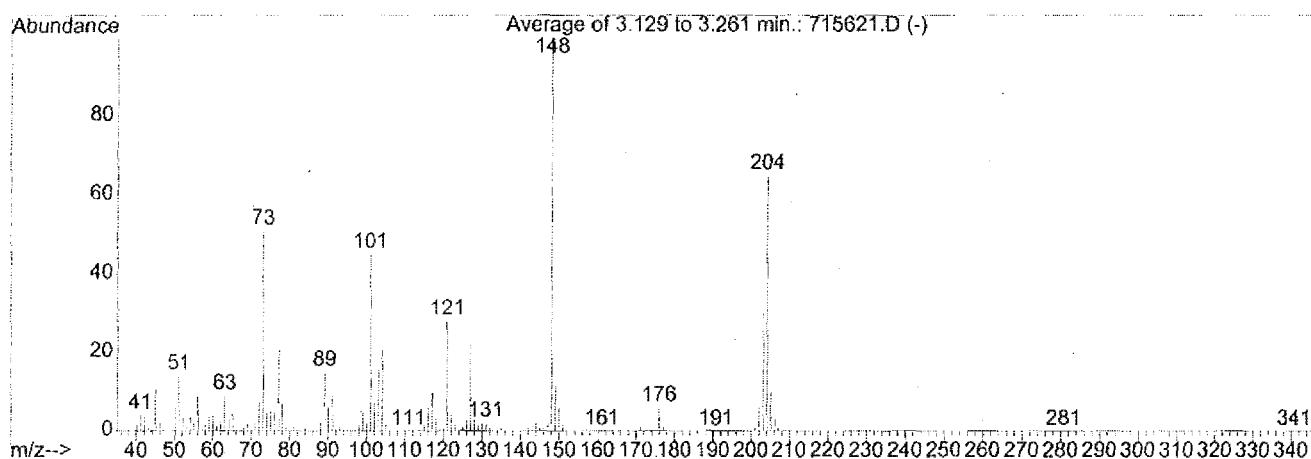
Area Percent / Library Search Report

Information from Data File:

File Name : F:\Q2-2010\SYSTEM4\05\_10\_10\715621.D  
 Operator : ASD  
 Date Acquired : 10 May 2010 13:43  
 Sample Name : XXXXXXXXXX  
 Submitted by : DXF  
 Vial Number : 21  
 AcquisitionMeth: DRUGS  
 Integrator : RTE

Search Libraries: C:\DATABASE\SLI.L Minimum Quality: 90  
 C:\DATABASE\PMW\_TOX2.L Minimum Quality: 90  
 C:\DATABASE\NIST98.L

| PK# | RT   | Library/ID                          | CAS#        | Qual |
|-----|------|-------------------------------------|-------------|------|
| 1   | 3.15 | C:\DATABASE\NIST98.L                |             |      |
|     |      | Imidazo[2,1-b]thiazole, 2,3,5,6-tet | 006649-23-6 | 98   |
|     |      | Imidazo[2,1-b]thiazole, 2,3,5,6-tet | 006649-23-6 | 98   |
|     |      | Imidazo[2,1-b]thiazole, 2,3,5,6-tet | 006649-23-6 | 97   |



# Area Percent / Library Search Report

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**Information from Data File:**

File Name : F:\Q2-2010\SYSTEM4\05\_10\_10\715621.D  
Operator : ASD  
Date Acquired : 10 May 2010 13:43  
Sample Name : XXXXXXXXXX  
Submitted by : DXF  
Vial Number : 21  
AcquisitionMeth: DRUGS  
Integrator : RTE

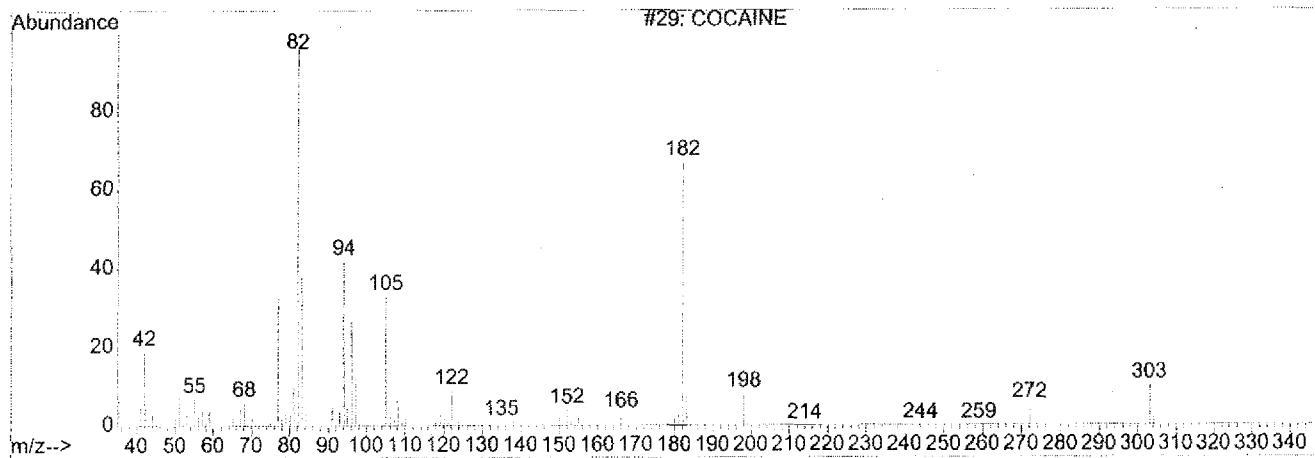
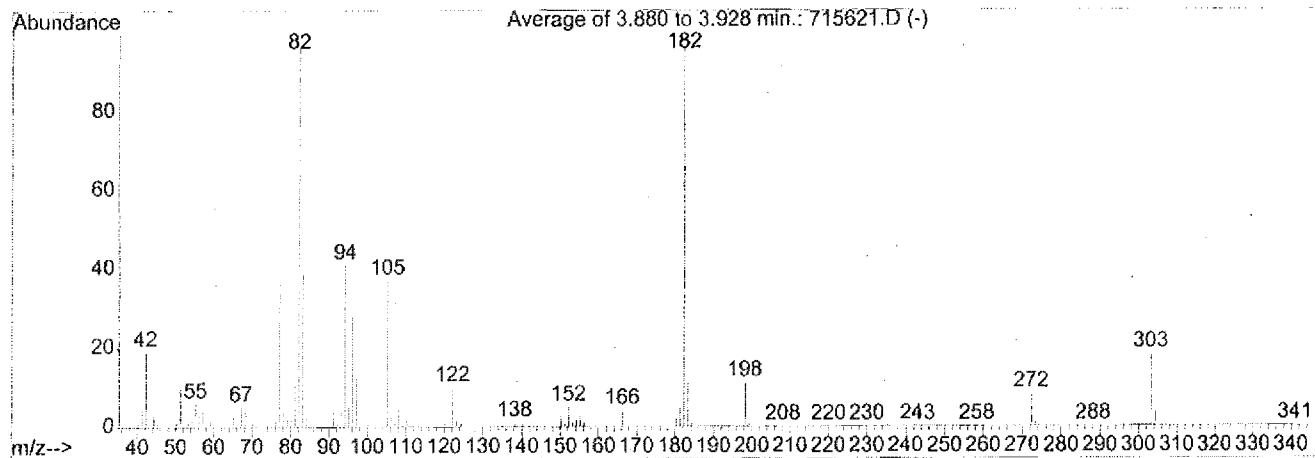
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Search Libraries: C:\DATABASE\SLI.L Minimum Quality: 90  
C:\DATABASE\PMW\_TOX2.L Minimum Quality: 90  
C:\DATABASE\NIST98.L

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| PK# | RT   | Library/ID                   | CAS#        | Qual |
|-----|------|------------------------------|-------------|------|
| 2   | 3.91 | C:\DATABASE\SLI.L<br>COCAINE | 000050-36-2 | 99   |

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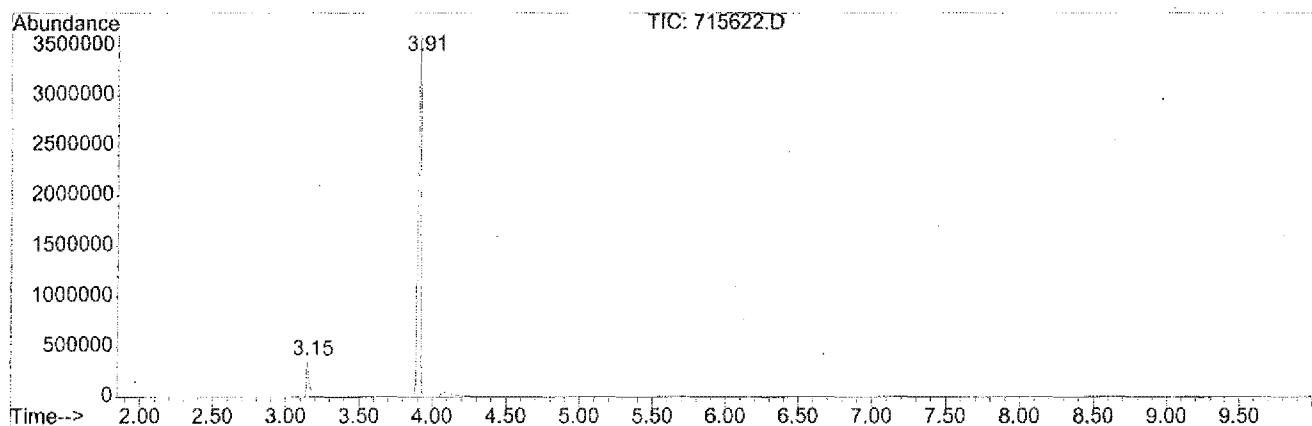
# Area Percent / Library Search Report

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File Name : F:\Q2-2010\SYSTEM4\05\_10\_10\715622.D  
Operator : ASD  
Date Acquired : 10 May 2010 13:56  
Sample Name : XXXXXXXXXX  
Submitted by : DXF  
Vial Number : 22  
AcquisitionMeth: DRUGS  
Integrator : RTE

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| Ret. Time | Area    | Area % | Ratio % |
|-----------|---------|--------|---------|
| 3.147     | 553322  | 10.58  | 11.84   |
| 3.914     | 4674752 | 89.42  | 100.00  |

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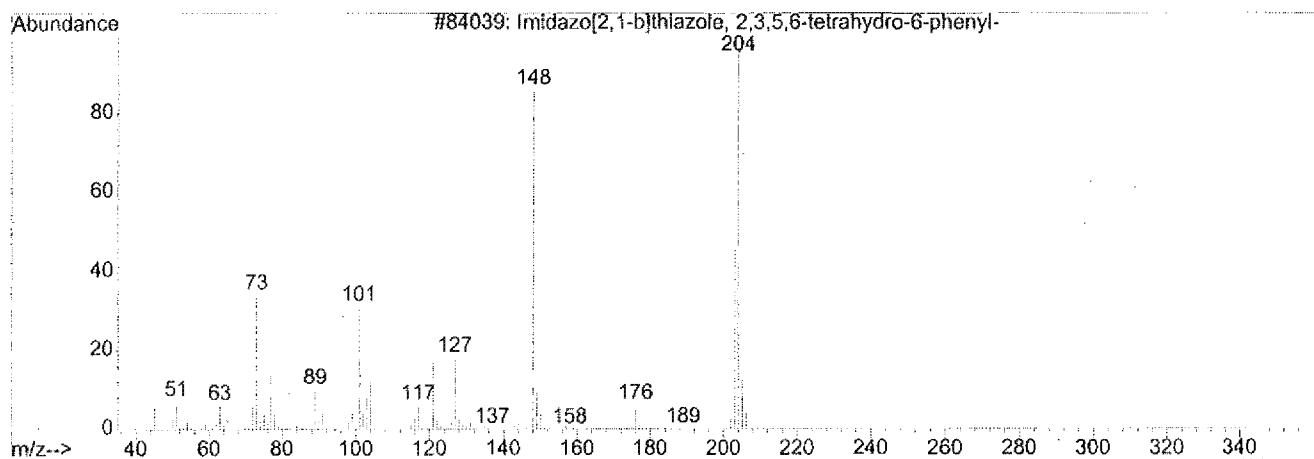
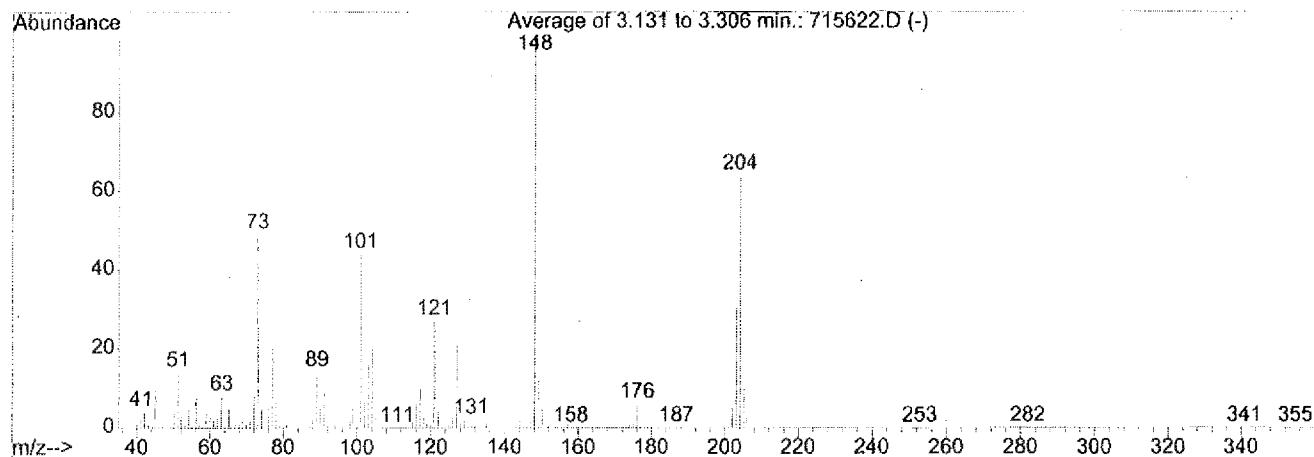
# Area Percent / Library Search Report

**Information from Data File:**

File Name : F:\Q2-2010\SYSTEM4\05\_10\_10\715622.D  
Operator : ASD  
Date Acquired : 10 May 2010 13:56  
Sample Name : XXXXXXXXXX  
Submitted by : DXF  
Vial Number : 22  
AcquisitionMeth: DRUGS  
Integrator : RTE

Search Libraries: C:\DATABASE\SLI.L Minimum Quality: 90  
C:\DATABASE\PMW\_TOX2.L Minimum Quality: 90  
C:\DATABASE\NIST98.L

| PK# | RT   | Library/ID                          | CAS#        | Qual |
|-----|------|-------------------------------------|-------------|------|
| 1   | 3.15 | C:\DATABASE\NIST98.L                |             |      |
|     |      | Imidazo[2,1-b]thiazole, 2,3,5,6-tet | 006649-23-6 | 99   |
|     |      | Imidazo[2,1-b]thiazole, 2,3,5,6-tet | 006649-23-6 | 99   |
|     |      | Imidazo[2,1-b]thiazole, 2,3,5,6-tet | 006649-23-6 | 97   |



# Area Percent / Library Search Report

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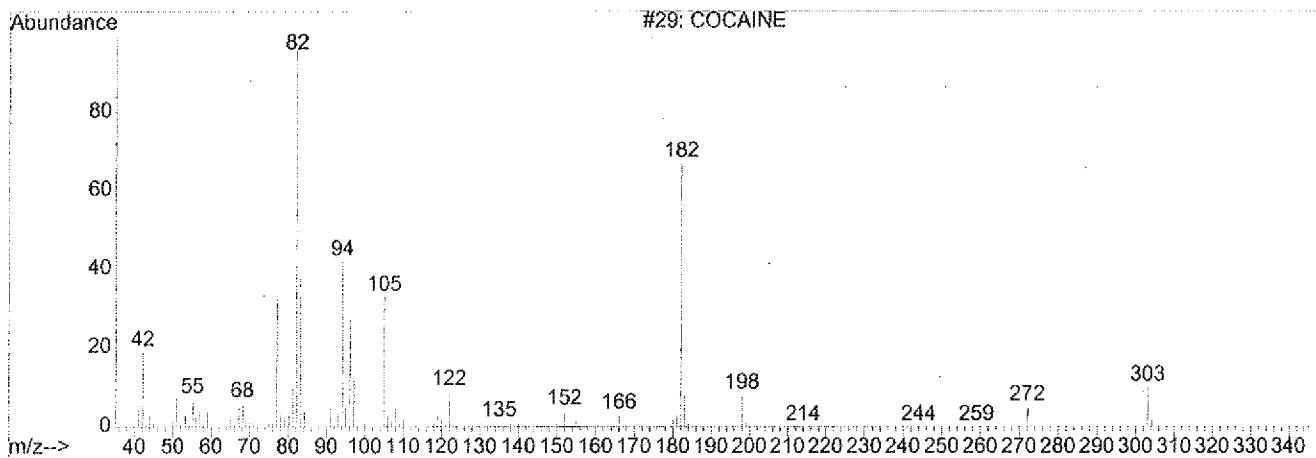
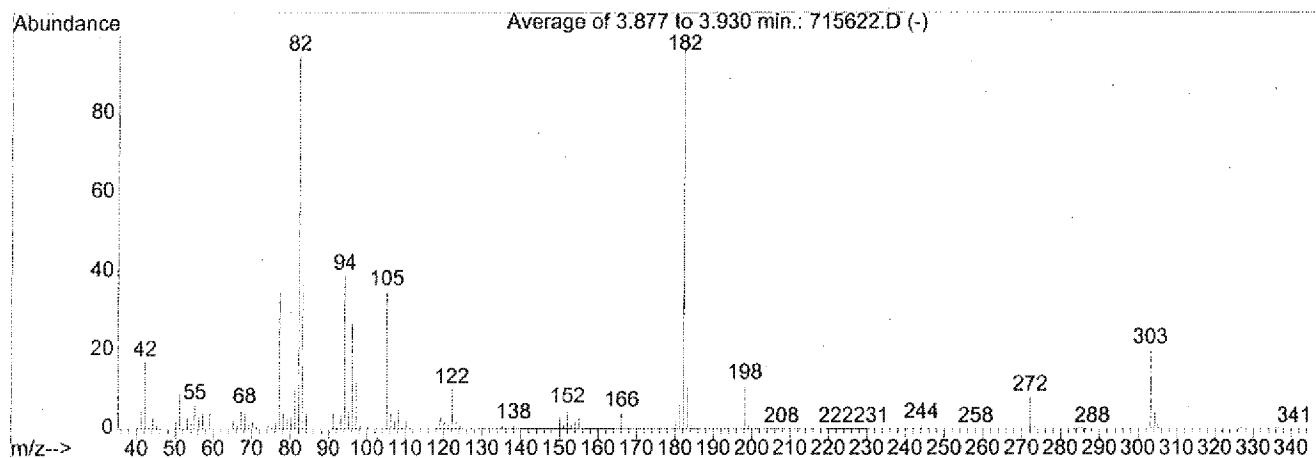
**Information from Data File:**

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Operator : ASD  
Date Acquired : 10 May 2010 13:56  
Sample Name : XXXXXXXXXX  
Submitted by : DXF  
Vial Number : 22  
AcquisitionMeth: DRUGS  
Integrator : RTE

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Search Libraries: C:\DATABASE\SLI.L Minimum Quality: 90  
C:\DATABASE\PMW\_TOX2.L Minimum Quality: 90  
C:\DATABASE\NIST98.L

| PK# | RT   | Library/ID                   | CAS#        | Qual |
|-----|------|------------------------------|-------------|------|
| 2   | 3.91 | C:\DATABASE\SLI.L<br>COCAINE | 000050-36-2 | 99   |



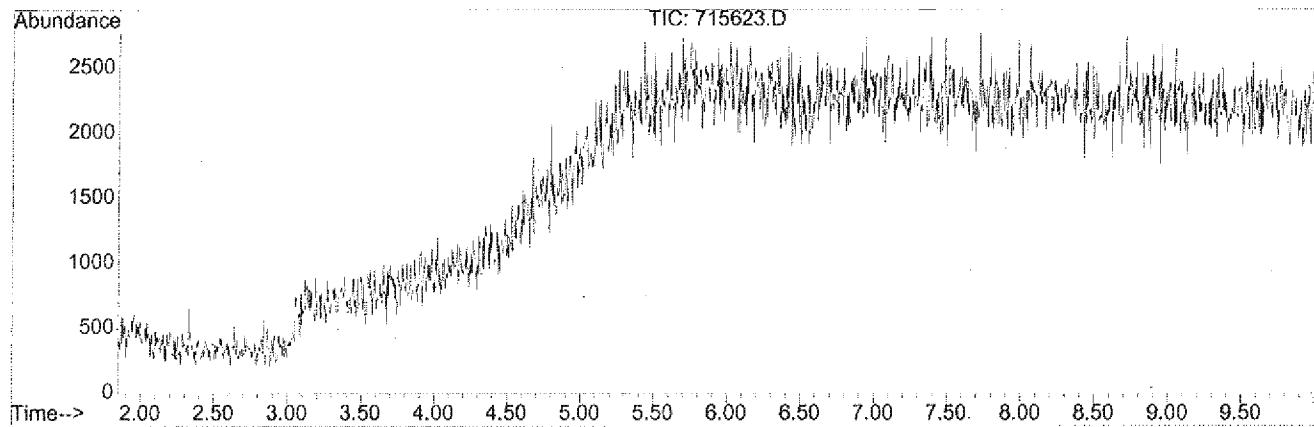
# Area Percent / Library Search Report

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Operator : ASD  
Date Acquired : 10 May 2010 14:10  
Sample Name : BLANK  
Submitted by : CBS  
Vial Number : 1  
AcquisitionMeth: DRUGS  
Integrator : RTE

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| Ret. Time | Area | Area % | Ratio % |
|-----------|------|--------|---------|
|-----------|------|--------|---------|

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\*\*\*NO INTEGRATED PEAKS\*\*\*

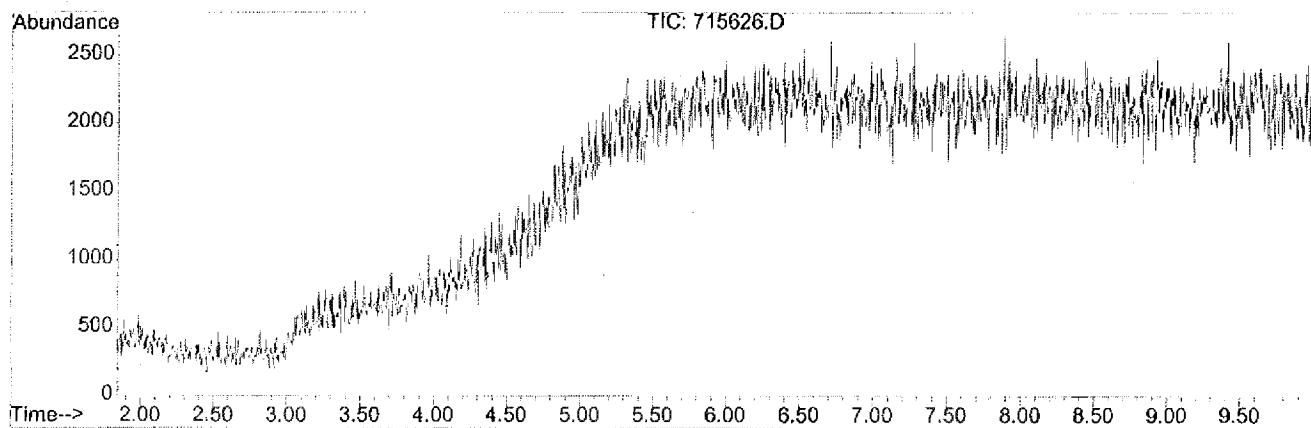
# Area Percent / Library Search Report

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**Information from Data File:**

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Operator : ASD  
Date Acquired : 10 May 2010 14:51  
Sample Name : BLANK  
Submitted by :  
Vial Number : 1  
AcquisitionMeth: DRUGS  
Integrator : RTE

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| Ret. Time | Area | Area % | Ratio % |
|-----------|------|--------|---------|
|-----------|------|--------|---------|

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\*\*\*NO INTEGRATED PEAKS\*\*\*

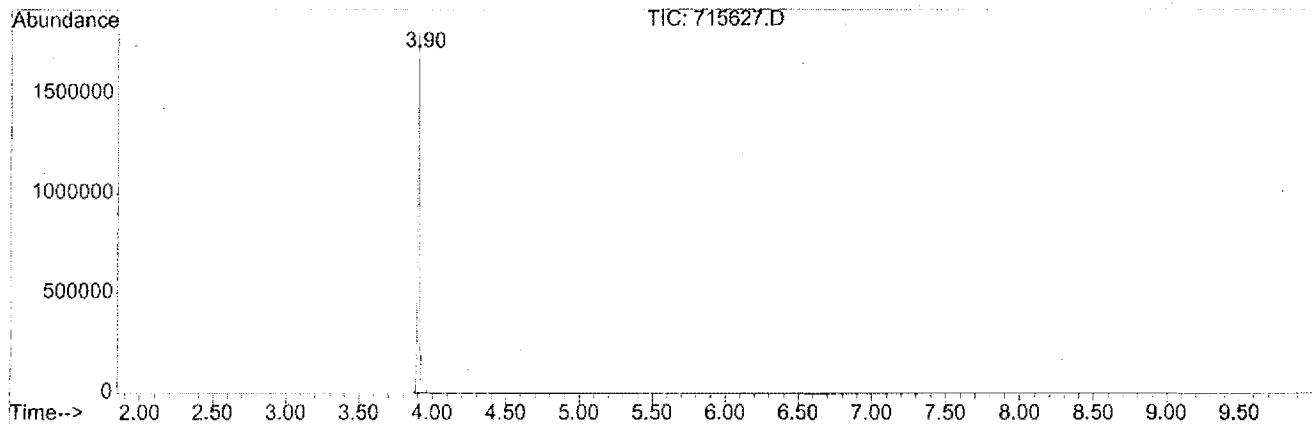
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## Information from Data File:

File Name : F:\Q2-2010\SYSTEM4\05\_10\_10\715627.D  
Operator : ASD  
Date Acquired : 10 May 2010 15:05  
Sample Name : COCAINE STD  
Submitted by :  
Vial Number : 27  
AcquisitionMeth: DRUGS  
Integrator : RTE

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| Ret. Time | Area    | Area % | Ratio % |
|-----------|---------|--------|---------|
| 3.901     | 1583532 | 100.00 | 100.00  |

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Area Percent / Library Search Report

Information from Data File:

File Name : F:\Q2-2010\SYSTEM4\05\_10\_10\715627.D  
 Operator : ASD  
 Date Acquired : 10 May 2010 15:05  
 Sample Name : COCAINE STD  
 Submitted by :  
 Vial Number : 27  
 AcquisitionMeth: DRUGS  
 Integrator : RTE

Search Libraries: C:\DATABASE\SLI.L Minimum Quality: 90  
                   C:\DATABASE\PMW\_TOX2.L Minimum Quality: 90  
                   C:\DATABASE\NIST98.L

| PK# | RT   | Library/ID                   | CAS#        | Qual |
|-----|------|------------------------------|-------------|------|
| 1   | 3.90 | C:\DATABASE\SLI.L<br>COCAINE | 000050-36-2 | 99   |

